

What is claimed:

Subt. B1

1. A method for treating cancer comprising administering to a patient a therapeutically effective amount of cyclophosphamide; administering ~~a therapeutically effective amount of an irradiated composition selected from the group consisting of live tumor cells, tumor cell extracts, and a mixture of tumor cells and tumor cell extracts; said composition mixed with an immunological adjuvant.~~

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2. The method of claim 1 wherein said tumor is selected from melanoma, lung, colon, breast, kidney, and prostate.

C 15 D

3. The method of claim 1 useful for the treatment of cancer selected from the group consisting of melanoma, lung cancer, colon cancer, breast cancer, kidney cancer, and prostate cancer.

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4. The method of claim 1 wherein said tumor cells and extracts are selected from cells and extracts which are ~~or~~ autologous, allogenic, or stem cells.

a 25 D

5. The method of claim 1 wherein said composition further comprises a hapten ³⁶ ~~is~~ selected from the group consisting of dinitrophenyl, trinitrophenyl, and N-iodoacetyl-N'-(5-sulfonic 1-naphthyl) ethylene diamine.

6. The method of claim 5 wherein said hapten is dinitrophenyl.

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D 5 7. The method of claim 2 wherein said therapeutically effective amount of cyclophosphamide comprises administering a dose of about 300 mg/M² of cyclophosphamide prior to administration of said composition.

10 8. The method of claim 1 wherein said composition is mixed with said immunological adjuvant prior to administration.

15 9. The method of claim 8 wherein said immunological adjuvant is *Bacille Calmette-Guerin*.

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D 10. The method of claim 4 further comprising sensitizing the patient with a therapeutically effective amount of 1-fluoro-2,4-dinitrobenzene prior to administering cyclophosphamide.

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11. A method for the treatment of human cancer comprising administering to a patient with a therapeutically effective amount of cyclophosphamide; administering a therapeutically effective amount of an irradiated composition selected from the group consisting of live tumor cells, tumor cell extracts, and a mixture of tumor cells and tumor cell extracts, said composition mixed with an immunological

adjuvant; and administering a therapeutically effective amount of a cytokine selected from the group consisting of interleukin-12 and gamma interferon.

5 12. The method of claim 11 wherein said tumor is selected from the group consisting of cells and extracts which are autologous, allogenic, or stem cells.

10 13. The method of claim 11 wherein said composition further comprises a hapten selected from the group consisting of dinitrophenyl, trinitrophenyl, and N-iodoacetyl-N'-(5-sulfonic 1-naphthyl) ethylene diamine.

15 14. The method of claim 12 wherein said hapten is DNP.

20 15. The method of claim 11 wherein said therapeutically effective amount of cyclophosphamide comprises administering a dose of about 300 mg/M² of cyclophosphamide prior to administration of said composition.

25 16. The method of claim 11 wherein said composition is mixed with an immunological adjuvant prior to administration.

17. The method of claim 11 wherein said immunological adjuvant is Bacille Calmette-Guerin.

18. The method of claim 11 wherein said tumor is selected from melanoma, lung, colon, breast, kidney, and prostate.

5 19. The method of claim 11 useful for the treatment of cancer selected from the group consisting of melanoma, lung cancer, colon cancer, breast cancer, kidney cancer, and prostate cancer.

10 20. The method of claim 11 further comprising sensitizing the patient with 1-fluoro-2,4-dinitrobenzene prior to administrating cyclophosphamide.

15 21. A method for treating cancer comprising administering to a patient a therapeutically effective amount of cyclophosphamide; administering a therapeutically effective amount of a haptenized, irradiated composition selected from the group consisting of live tumor cells, tumor cell extracts, and a mixture of tumor cells and tumor cell extracts, said composition mixed with an immunological adjuvant; administering a therapeutically effective amount of a non-haptenized, irradiated composition selected from the group consisting of live tumor cells, tumor cell extracts, and a mixture of tumor cells and tumor cell extracts, said composition mixed with an immunological adjuvant.

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Subt-B2 22. A pharmaceutical composition selected from the group consisting of tumor cells, tumor cell extracts, and a mixture of tumor cells and tumor cell extracts, said composition mixed with an immunological adjuvant, said composition useful for the treatment of cancer.

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B 23. The composition of claim 22 wherein said tumor cells and extracts are selected from the group consisting of cells and extracts which are autologous, *or* allogenic, *or* stem cells.

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E 24. The composition of claim 22 wherein said tumor cell is selected from the group consisting of melanoma, breast, lung, colon, breast, kidney, and prostate.

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D *SB* *HB* 25. The composition of claim 22 wherein said tumor is melanoma.

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Sub D² 26. The composition of claim 22 further comprising a hapten selected from the group consisting of dinitrophenyl, trinitrophenyl, and N-iodoacetyl-N'-(5 sylfonic 1-naphtyl) ethylene diamine.

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27. The composition of claim 26 wherein said hapten is dinitrophenyl.

D 28. The composition of claim 22 wherein said immunological adjuvant is *Bacille Calmette-Guerin.*

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29. The composition of claim 22 comprising a therapeutically effective amount of tumor cells.

5 30. The composition of claim 22 comprising a therapeutically effective amount of tumor cell extracts.

10 31. The composition of claim 22 comprising a therapeutically effective amount of a mixture of tumor cell extracts and tumor cells.

add C
add D
add G₁

Mix